

US010059

Appl. No. 09/808,377
Amdt. Dated April 20, 2005
Reply to Office Action of August 16, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions,
and listings, of claims in the application:

Listing of Claims:

- 1 1. (currently amended): A stereo camera system
2 comprising:
3 stereo imaging means for outputting at least one
4 stereo image, said stereo imaging means including:
5 a camera; and
6 a set of mirrors angled with respect to each other
7 at a predetermined angle relative to a centrally located
8 common plane intersecting said camera, each mirror having
9 adjacent ends positioned at a common point and disposed a
10 predetermined distance from the camera along the common
11 plane, for directing light from an object reflected in
12 said mirrors along a straight line of sight directly from
13 said mirrors to the camera, for producing a stereo effect
14 in the output of the camera;
15 recognition means for locating an object of interest
16 in the field of view of the stereo imaging means and at least
17 one of a distance of the object of interest from the stereo
18 imaging means and the size of the object of interest; and
19 adjusting means for automatically changing at least one
20 system parameter which affects the spatial resolution of the
21 object of interest based on at least one of the located

US010059

Appl. No. 09/808,377

Amdt. Dated April 20, 2005

Reply to Office Action of February 25, 2005

22 distance of the object of interest from the stereo imaging
23 means and the size of the object of interest.

1 2. (canceled).

1 3. (previously presented): The stereo camera system of
2 claim 1, wherein the camera is a still camera and the at least
3 one stereo image is a still image.

1 4. (previously presented): The stereo camera system of
2 claim 1, wherein the camera is a video camera and the at least
3 one stereo image is a sequence of video images.

1 5. (previously presented): The stereo camera system of
2 claim 1, wherein the adjusting means comprises at least one of:
3 angle adjustment means for adjusting the
4 predetermined angle between the set of mirrors;
5 distance adjustment means for adjusting the
6 predetermined distance between the camera and the set of
7 mirrors; and
8 focal length adjustment means for changing a
9 focal length of the camera.

1 6. (original): The stereo camera of claim 5, further
2 comprising a controller for controlling at least one of the
3 angle, distance, and focal length adjustment means based on an
4 input signal from the recognition means.

1 7. (canceled).

US010059

Appl. No. 09/808,377

Amdt. Dated April 20, 2005

Reply to Office Action of August 16, 2004

1 8. (canceled).

1 9. (canceled).

1 10. (canceled).

1 11. (previously presented): The stereo camera of claim
2 1, further comprising a controller for controlling at least one
3 of the angle, baseline, distance, and focal length adjustment
4 means based on an input signal from the recognition means.

1 12. (original): The stereo camera system of claim 1,
2 wherein the recognition means is a stereo vision system.

1 13. (canceled).

1 14. (canceled).

1 15. (canceled).

1 16. (canceled).

1 17. (canceled).

1 18. (canceled).

1 19. (canceled).

US010059

Appl. No. 09/808,377
Amdt. Dated April 20, 2005
Reply to Office Action of August 16, 2004

1 20. (canceled).

1 21. (currently amended): A method for adjusting a stereo
2 camera system to control spatial resolution of an object of
3 interest in the field of view of a stereo imaging means, the
4 method comprising the steps of:
5 outputting at least one image from the stereo imaging
6 means;
7 locating an object of interest in the field of view of
8 the stereo imaging means and at least one of the distance of
9 the object of interest from the stereo imaging means and the
10 size of the object of interest;
11 automatically changing at least one system parameter
12 which affects the spatial resolution of the object of interest
13 based on at least one of the located distance of the object of
14 interest from the stereo imaging means and the size of the
15 object of interest; and
16 providing said stereo imaging means by further
17 including the steps of:
18 using a camera to receive light from said object;
19 establishing a predetermined angle between a set
20 of mirrors, the angle being relative to a centrally
21 located common plane intersecting said camera, and
22 adjacent ends of said ~~mirrors~~ mirrors being positioned at
23 a common point of origin; and
24 establishing a predetermined distance from the camera
25 and the adjacent ends of said mirrors for reflecting light
26 from said object from said mirrors along a straight line

US010059

Appl. No. 09/808,377

Amdt. Dated April 20, 2005

Reply to Office Action of February 25, 2005

27 of sight directly to said camera, for producing a stereo
28 effect in the output of the camera.

1 22. (previously presented): A stereo camera system
2 comprising:

3 a stereo imaging means including two video cameras,
4 each camera being angled a predetermined angle and distanced a
5 predetermined distance with respect to each other and the
6 object of interest, for outputting at least one stereo image as
7 a sequence of video images;

8 recognition means for locating an object of interest
9 in the field of view of the stereo imaging means and at least
10 one of a distance of the object of interest from the stereo
11 imaging means and the size of the object of interest;

12 adjusting means for automatically changing at least
13 one system parameter which affects the spatial resolution of
14 the object of interest based on at least one of the located
15 distance of the object of interest from the stereo imaging
16 means and the size of the object of interest, wherein the
17 adjusting means comprises:

18 angle adjustment means for adjusting the
19 predetermined angle of at least one of the two cameras;

20 baseline adjustment means for adjusting the
21 predetermined distance between the two cameras;

22 distance adjusting means for adjusting a distance
23 between at least one of the two cameras and the object of
24 interest; and

25 focal length adjustment means for changing a
26 focal length of at least one of the two cameras.